

Fig. 1

MeBr Soil Gas Conc. vs. Time
Gas Concentrations of Drip Treatment Adjusted for Film Permeability
—◆— Drip Center 12" Depth —■— Tarped Broadcast Center 12" Depth

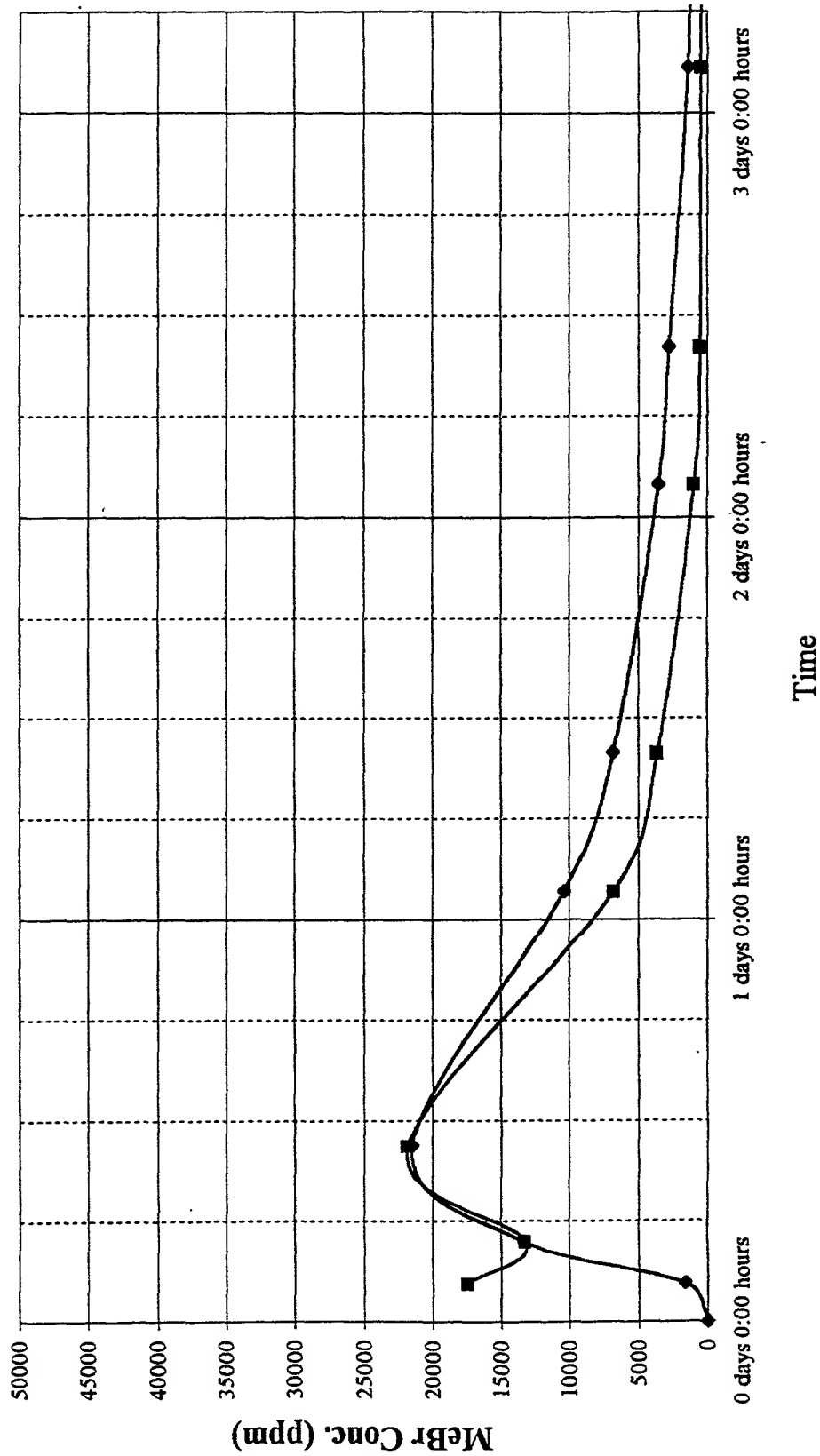


Fig. 2a

MeBr Headspace Conc. vs. Time
Run #1 MeBr + ATLOX Surfactant + Water

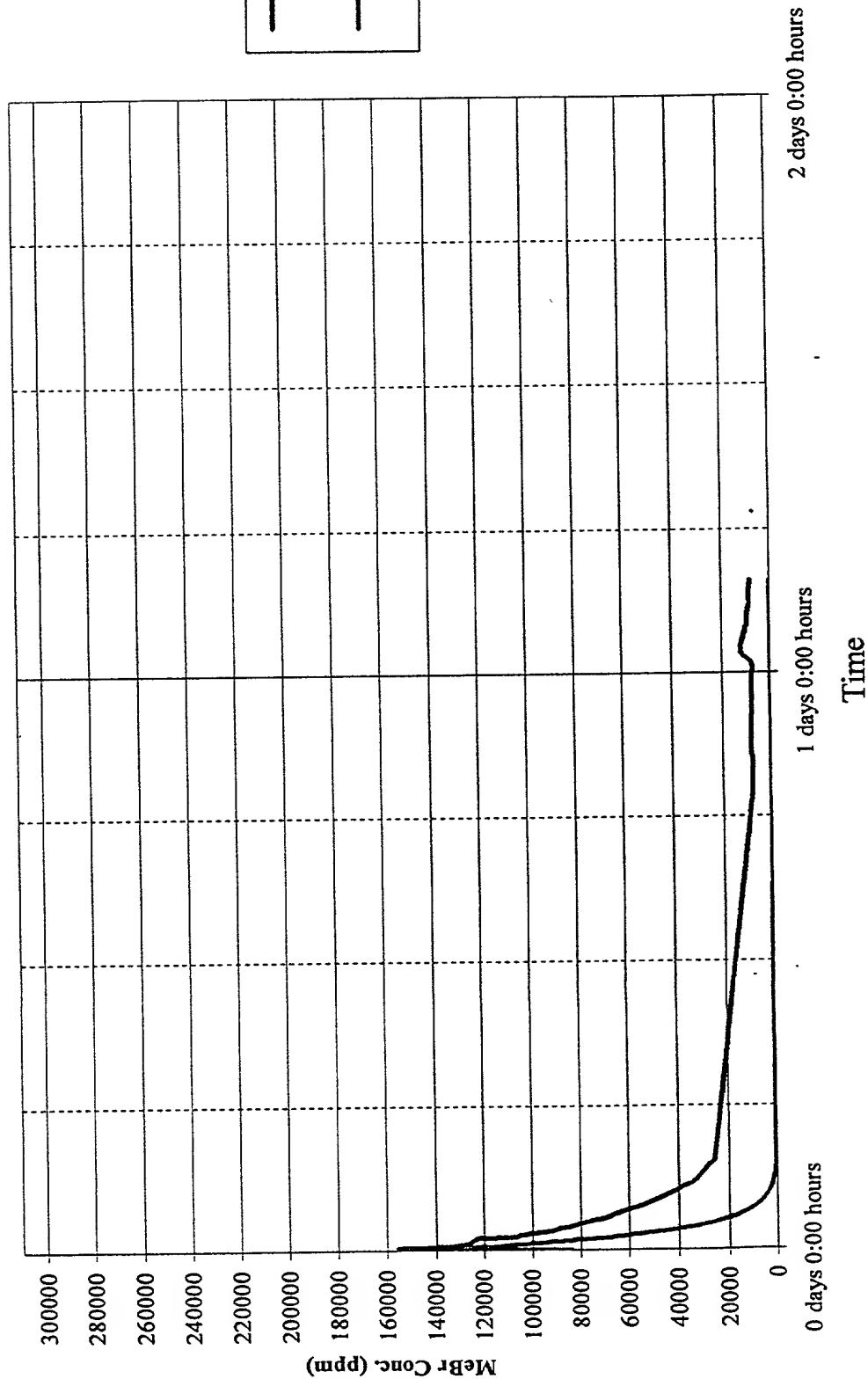


Fig. 2b

MeBr Headspace Conc. vs. Time Run #2 MeBr + Water

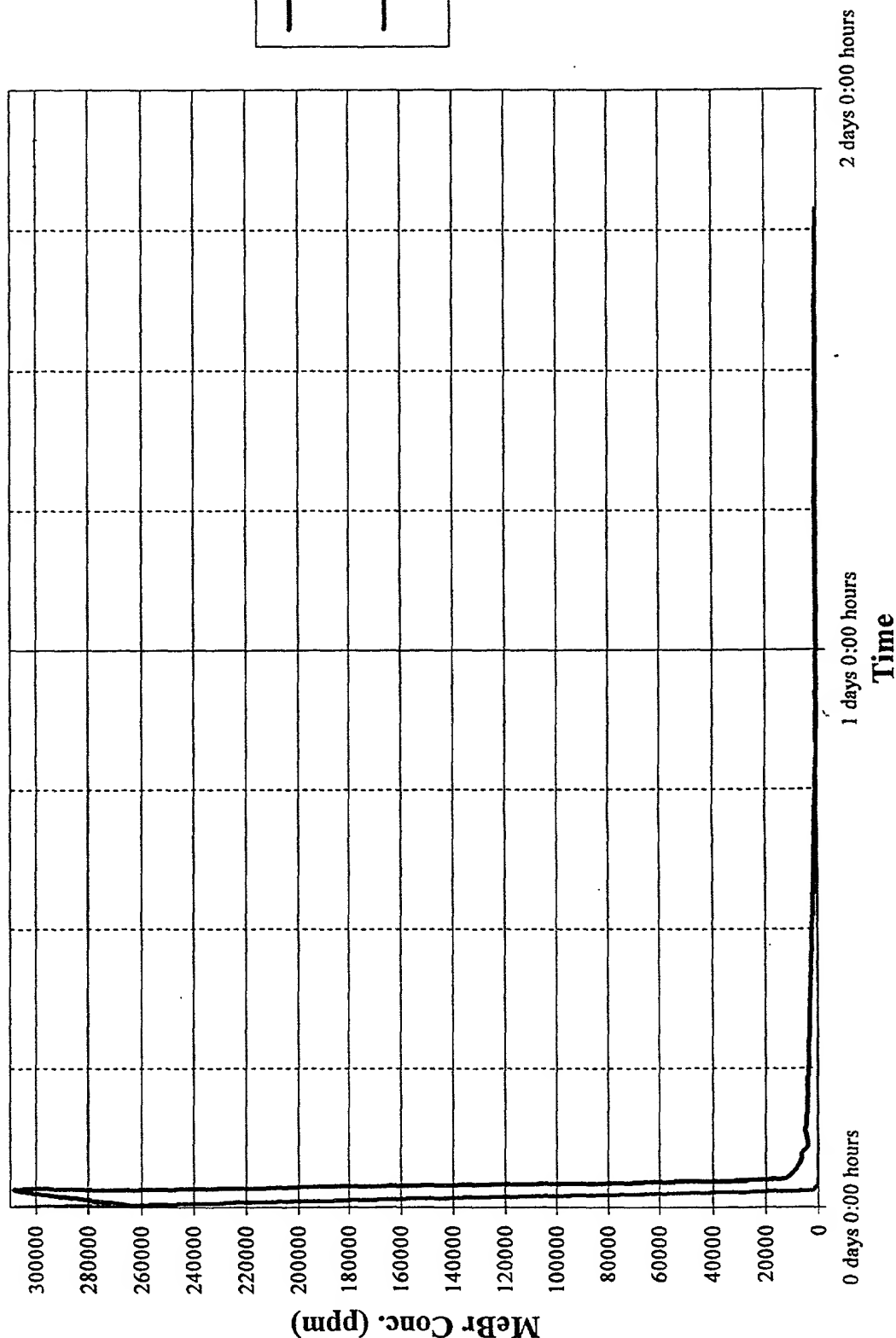
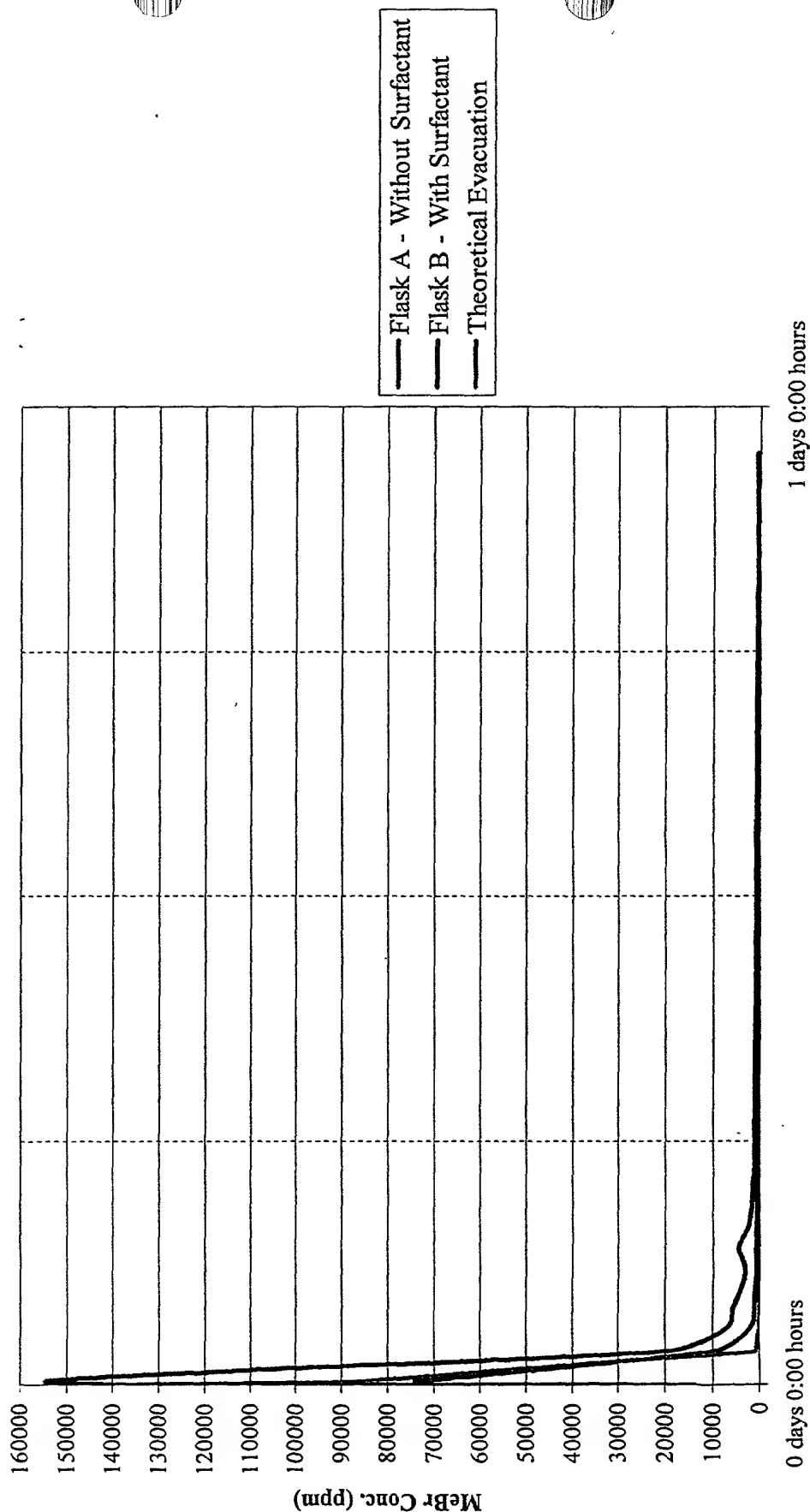


Fig. 2c

MeBr Headspace Conc. vs. Time Run #3 & #4 MeBr With and Without ATLOX Surfactant



Time

FLASK A had 2 mL of MeBr added, FLASK B had 0.5 mL added.

FIG. 3

Treatment of different types of tubing
with Chloropirin formulation

Tubing Type	Immediate Rx	Wall Thickness after 15 Hours	Elasticity/ Strength after 15 Hours	General Appearance Integrity After 15 Hours
Black Seamless Latex	none	no change	maintained	no effect
FEP Teflon	none	no change	maintained	no effect
Nalgene 860 Tissue Culture Grade	none	no change	maintained	sticky
Manosilt	none	no change	maintained	no effect
Tygon R3603	none	reduced thick- ness	reduced slightly	appeared melted
Nalgene 180 Premium PVC	none	reduced thickness	reduced slightly	slightly opaque, appeared melted

Fig. 4.

Nematode Efficacy - Chloropicrin Drip Application of Various EC Percentages Summary of Results

Cylinder #	Nematode Species \square							
	Root Knot (Meloidogyne)	Dagger (Xiphinema)	Citrus	Pin	Root Knot (Meloidogyne)	Dagger (Xiphinema)	Citrus	Pin
	Counts				Adjusted Counts \S			
1	5	3	168		15	9	504	0
2	22	4	216	28	66	12	648	84
3	1	2	456		3	6	1368	0
4	49		338	9	147	0	1014	27
5	0		7		0	0	21	0
6	23		40	4	69	0	120	12
7	112		80	14	336	0	240	42
8	29		79		87	0	237	0
9	0		114		0	0	342	0
10	16		72		48	0	216	0
11	22		160		66	0	480	0
12	29		87		87	0	261	0
13	115		136		345	0	408	0
14	16		30		48	0	90	0
15	22		31		66	0	93	0
16	79		82		237	0	246	0
17	15		17		45	0	51	0
18	30		81		90	0	243	0
19	69		109		207	0	327	0
20	26		68		78	0	204	0

\S 33% extraction efficiency, measured values multiplied by 3

\square No counts were obtained for Ring nematode statistical analysis.

Fig. 5a

Chloropicrin EC - Lab Tests for Weed Seed Mortality

P/GW/ED

Treatment Date = 10/28/1999										Number of Seeds/Dish = 100										Seed Germination Counts										(% Mortality)																			
Weed Seed: <i>Immunanthus temulifolius</i>										Date of Count = 11/5/1999										Date of Count = 11/9/1999										Elapsed Time from Treatment = 8 Days										Elapsed Time from Treatment = 12 Days									
Treatment										1st Count					2nd Count					1st Count					2nd Count					1st Count					2nd Count					2nd Count at 12 Days					% Mortality Above Control				
Seed Age	Treatment Solution	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Mean	Rep 1	Rep 2	Rep 3	Rep 4	Mean	% Mortality													
NEW SEED	Control 0 ppm, 0% Emulsifier	26	29	15	20	75	66	55	75	74%	71%	85%	80%	74%	71%	85%	80%	78%	25%	34%	45%	25%	34%	45%	25%	34%	45%	25%	32%	78%	25%	34%	45%	25%	32%	0%													
NEW SEED	0 ppm, 5% Emulsifier	13	9	10	14	15	16	21	32	87%	91%	90%	86%	87%	91%	90%	86%	89%	85%	84%	79%	85%	84%	79%	85%	84%	79%	85%	79%	47%	89%	85%	79%	85%	79%	47%													
NEW SEED	0 ppm, 50% Emulsifier	6	2	12	4	10	4	19	6	94%	98%	88%	96%	94%	98%	88%	96%	94%	90%	90%	81%	90%	96%	81%	90%	96%	81%	90%	90%	58%	94%	90%	81%	94%	90%	58%													
NEW SEED	500 ppm, 5% Emulsifier	0	3	1	4	0	3	1	4	100%	97%	99%	96%	100%	97%	99%	96%	98%	100%	97%	99%	96%	98%	97%	99%	96%	98%	95%	66%	98%	97%	99%	96%	98%	66%														
NEW SEED	500 ppm, 50% Emulsifier	0	2	0	2	3	6	3	7	7%	98%	100%	98%	7%	98%	100%	98%	76%	97%	94%	97%	98%	94%	97%	98%	94%	97%	95%	63%	97%	93%	99%	99%	97%	63%														
NEW SEED	1000 ppm, 5% Emulsifier	4	1	1	0	9	2	1	1	96%	99%	99%	100%	96%	99%	99%	100%	99%	91%	98%	99%	91%	98%	99%	99%	91%	98%	99%	97%	65%	100%	100%	100%	100%	100%	65%													
NEW SEED	1000 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	68%	100%	100%	100%	100%	100%	68%														
OLD SEED	Control 0 ppm, 0% Emulsifier																																																
OLD SEED	0 ppm, 5% Emulsifier																																																
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OLD SEED	1000 ppm, 50% Emulsifier																																																

NEW SEED

Above: Single Factor

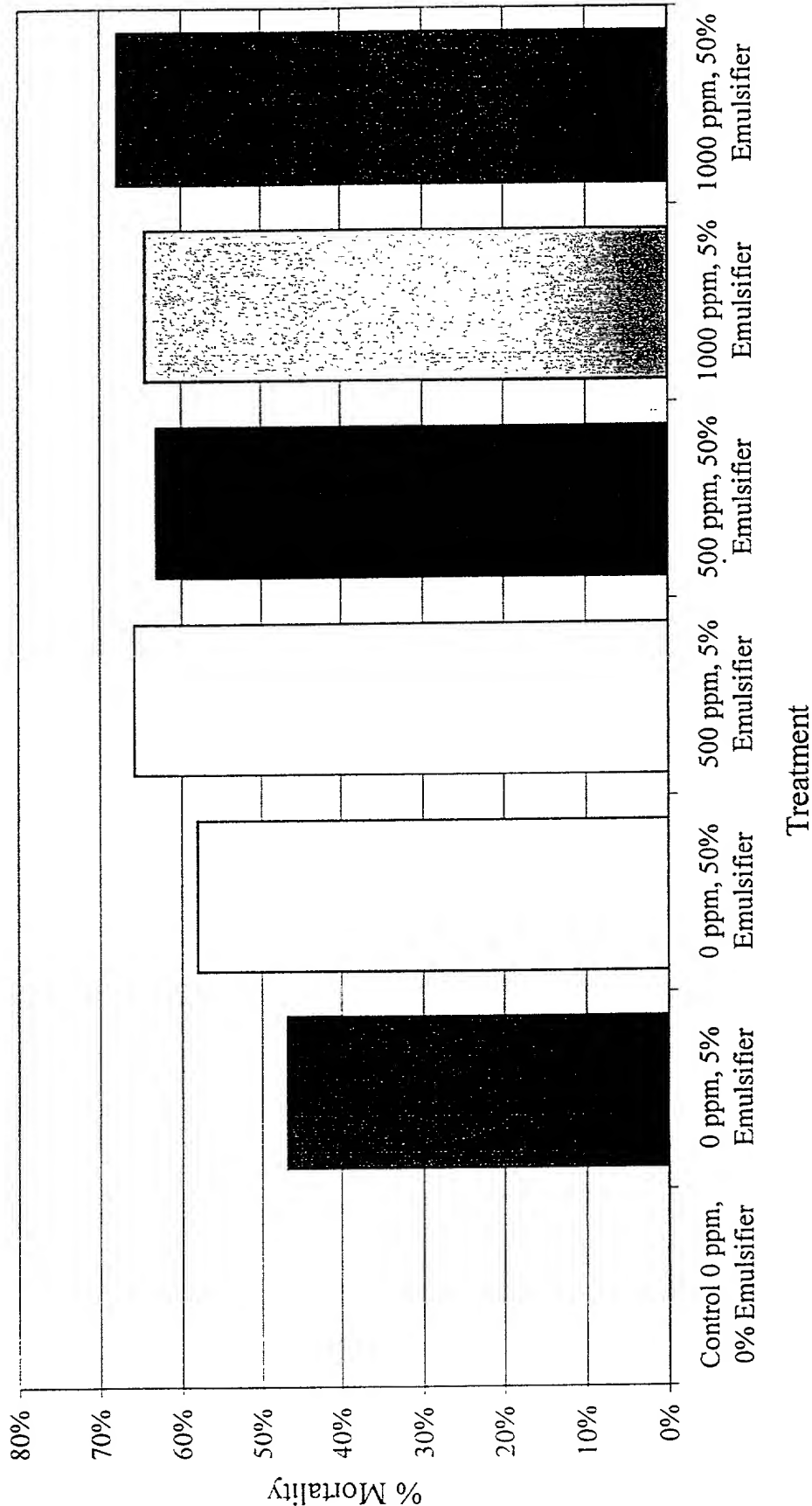
HIGHLY SIGNIFICANT DIFFERENCE @ 99%

SUMMARY		Groups		Count		Sum		Average		Variance	
Row 1		4		1	29	0	3225	0	009025		
Row 2		4		3	16	0	79	0	0060687		
Row 3		4		3	61	0	8025	0	004425		
Row 4		4		3	92	0	88	0	0003333		
Row 5		4		3	81	0	8525	0	000425		
Row 6		4		3	87	0	8675	0	0014817		
Row 7		4		4		1			0		

ANOVA		Source of Variation		SS		df		MS		F		P-value		F crit	
Between Groups		1.3926		6		0.2321		74.641654		4.55E-13		5.880793			
Within Groups		0.0653		21		0.00311									
Total		1.4579		27											

Fig. 5b

% Mortality of New Weed Seeds Over Control Pigweed



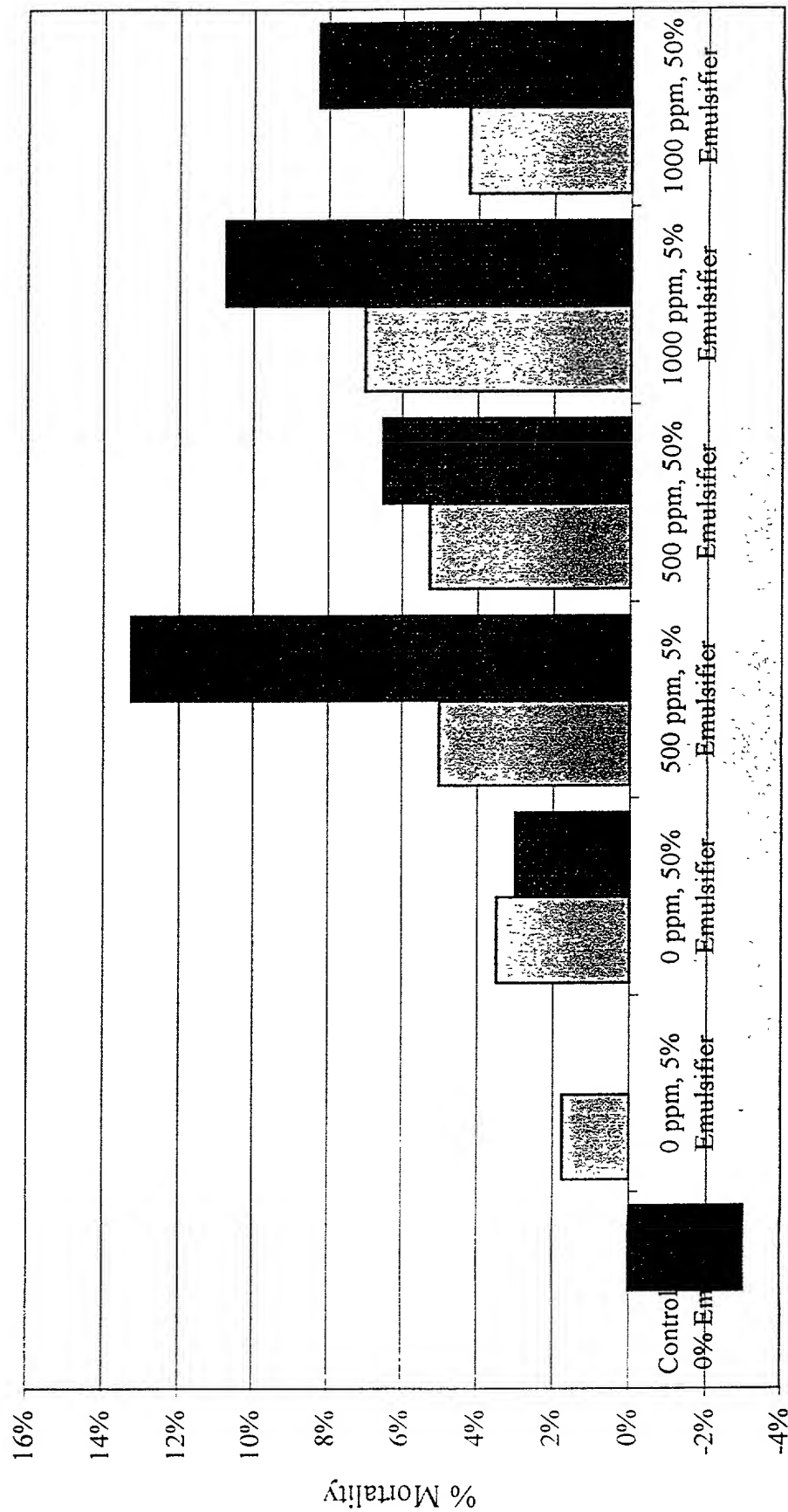
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	

Chloropicrin EC - Lab Tests for Weed Seed Mortality
WHITE SWEET
CLOVER

[illegible]

FIG. 66

% Mortality of New Weed Seeds Over Control White Sweet Clover



Treatment

Fig. 7a

Chloropicrin EC - Lab Tests for Weed Seed Mortality
WILD MUSTARDWeed Seed: *Brassica kaber*

Treatment Date = 10/28/1999 Number of Seeds/Dish = 100

Treatment		Seed Germination Counts										(% Mortality)										% Mortality Above Control
		Date of Count = 11/5/1999					Date of Count = 11/9/1999					1st Count at 8 Days					2nd Count at 12 Days					
		Elapsed Time from Treatment = 8 Days					Elapsed Time from Treatment = 12 Days															
Seed Age	Treatment Solution	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Mean	Mean			
NEW SEED	Control 0 ppm, 0% Emulsifier	35	38	40	33	60	51	49	54	65%	62%	60%	67%	64%	49%	51%	46%	47%				
NEW SEED	0 ppm, 5% Emulsifier	34	29	32	28	80	78	75	79	66%	71%	68%	72%	69%	22%	25%	21%	22%				
NEW SEED	0 ppm, 50% Emulsifier	28	31	29	32	81	77	70	82	72%	69%	71%	68%	70%	23%	30%	18%	23%				
NEW SEED	500 ppm, 5% Emulsifier	34	16	35	36	82	72	91	88	66%	84%	65%	64%	70%	28%	9%	12%	17%				
NEW SEED	500 ppm, 50% Emulsifier	40	26	10	24	83	76	80	85	60%	74%	90%	76%	75%	24%	20%	15%	19%				
NEW SEED	1000 ppm, 5% Emulsifier	30	31	18	22	81	80	70	76	70%	69%	82%	78%	75%	20%	30%	24%	23%				
NEW SEED	1000 ppm, 50% Emulsifier	31	11	3	41	36	13	12	41	69%	89%	97%	59%	79%	87%	88%	59%	75%				
Date of Count = 11/8/1999		Date of Count = 11/8/1999										Date of Count = 11/8/1999										
Elapsed Time from Treatment = 11 Days		Elapsed Time from Treatment = 11 Days										Elapsed Time from Treatment = 11 Days										
OLD SEED	Control 0 ppm, 0% Emulsifier	0	1	0	1	0	1	0	1	100%	99%	100%	99%	100%	99%	100%	99%	100%				
OLD SEED	0 ppm, 5% Emulsifier	2	2	0	1	2	2	0	1	98%	98%	100%	99%	99%	98%	100%	99%	99%				
OLD SEED	0 ppm, 50% Emulsifier	1	0	0	1	1	0	0	1	99%	100%	100%	99%	100%	99%	100%	99%	100%				
OLD SEED	500 ppm, 5% Emulsifier	2	0	0	0	2	0	0	0	98%	100%	100%	100%	100%	98%	100%	100%	100%				
OLD SEED	500 ppm, 50% Emulsifier	3	2	3	0	3	2	3	0	97%	98%	97%	100%	98%	97%	98%	100%	98%				
OLD SEED	1000 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%				
OLD SEED	1000 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%				

NEW SEED

ANOVA, Single Factor

SIGNIFICANT DIFFERENCE @ 99%

SUMMARY

Groups	Count	Sum	Average	Variance
Row 1	4	1 86	0 465	0 0023
Row 2	4	0 86	0 225	0 00049687
Row 3	4	0 9	0 225	0 00296687
Row 4	4	0 67	0 1675	0 007025
Row 5	4	0 76	0 19	0 00153333
Row 6	4	0 93	0 2325	0 00249187
Row 7	4	2 98	0 745	0 02296687

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.073936	6	0.178989	31.5201256	1.87E-09	3.811748
Within Groups	0.11925	21	0.005678			
Total	1.193186	27				

OLD SEED

ANOVA, Single Factor

SIGNIFICANT DIFFERENCE @ 95%

SUMMARY

Groups	Count	Sum	Average	Variance
Row 1	4	3 98	0 995	3 3333E-05
Row 2	4	3 95	0 9875	6 1667E-05
Row 3	4	3 98	0 995	3 3333E-05
Row 4	4	3 98	0 995	1E-04
Row 5	4	3 92	0 98	0 0002
Row 6	4	4	1	0
Row 7	4	4	1	0

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.00124	6	0.00021	3.14545455	0.02324	2.57271
Within Groups	0.00137	21	6.5E-05			
Total	0.00261	27				

Fig. 7b

% Mortality of New Weed Seeds Over Control Wild Mustard

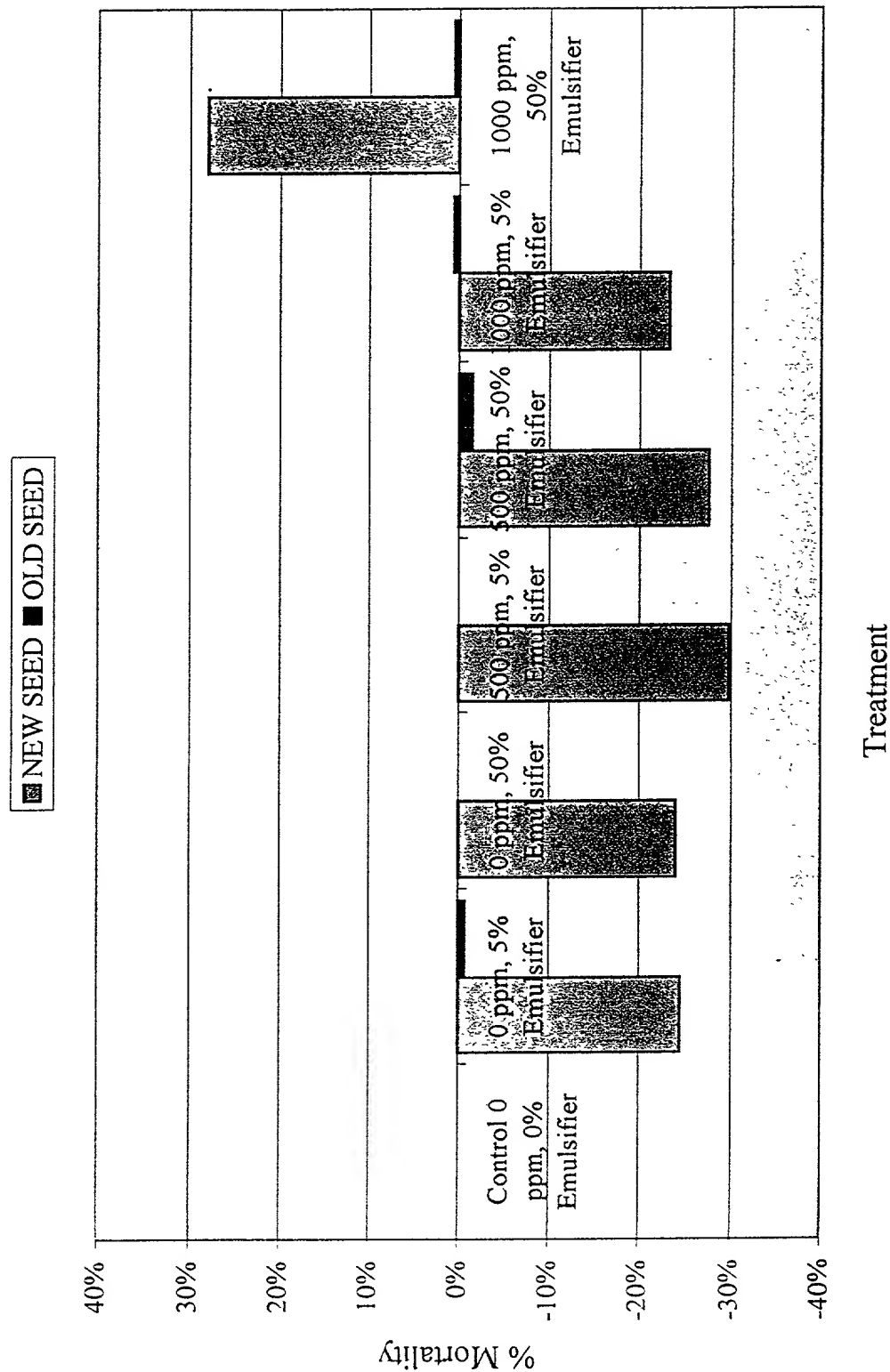


Fig. 8a

C343 Chloropicrin EC - Lab Tests for Weed Seed Mortality
YELLOW
NUTGRASS

Weed Seed: <i>Cyperus esculentus</i>		Treatment Date = 10/28/1999		Number of Seeds/Dish = 100		Seed Germination Counts												(% Mortality)												% Mortality Above Control
Treatment		Date of Count = 11/5/1999		Elapsed Time from Treatment = 8 Days		1st Count				2nd Count				1st Count at 8 Days				2nd Count				2nd Count at 12 Days								
		Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Mean				
NEW SEED	Control 0 ppm, 0% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
NEW SEED	0 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
NEW SEED	0 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
NEW SEED	500 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	5	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%	-1%			
NEW SEED	500 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98%	98%	-1%			
NEW SEED	1000 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	1	2	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99%	99%	-1%			
NEW SEED	1000 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
		Date of Count = 11/8/1999																												
		Elapsed Time from Treatment = 11 Days																												
OLD SEED	Control 0 ppm, 0% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
OLD SEED	0 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
OLD SEED	0 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
OLD SEED	500 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
OLD SEED	500 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
OLD SEED	1000 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			
OLD SEED	1000 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%			

NEW SEED

Anova Single Factor

No Significance

OLD SEED

No Significance

SUMMARY		Groups		Count	Sum	Average	Variance
Row 1		4	4	4	1	0	0
Row 2		4	4	4	1	0	0
Row 3		4	4	4	1	0	0
Row 4		4	3.95	0.9875	0.000625		
Row 5		4	3.88	0.995	1E-04		
Row 6		4	3.97	0.9925	9.1687E-05		
Row 7		4	4	1	0	0	0

ANOVA		Source of Variation	SS	df	MS	F	P-value	Fcrit
Between Groups			0.000593	8	9.88E-05	0.84693878	0.548452	2.572712
Within Groups			0.00245	21	0.000117			
Total			0.003043	27				

Fig. 8b

% Mortality of New Weed Seeds Over Control Yellow Nutgrass

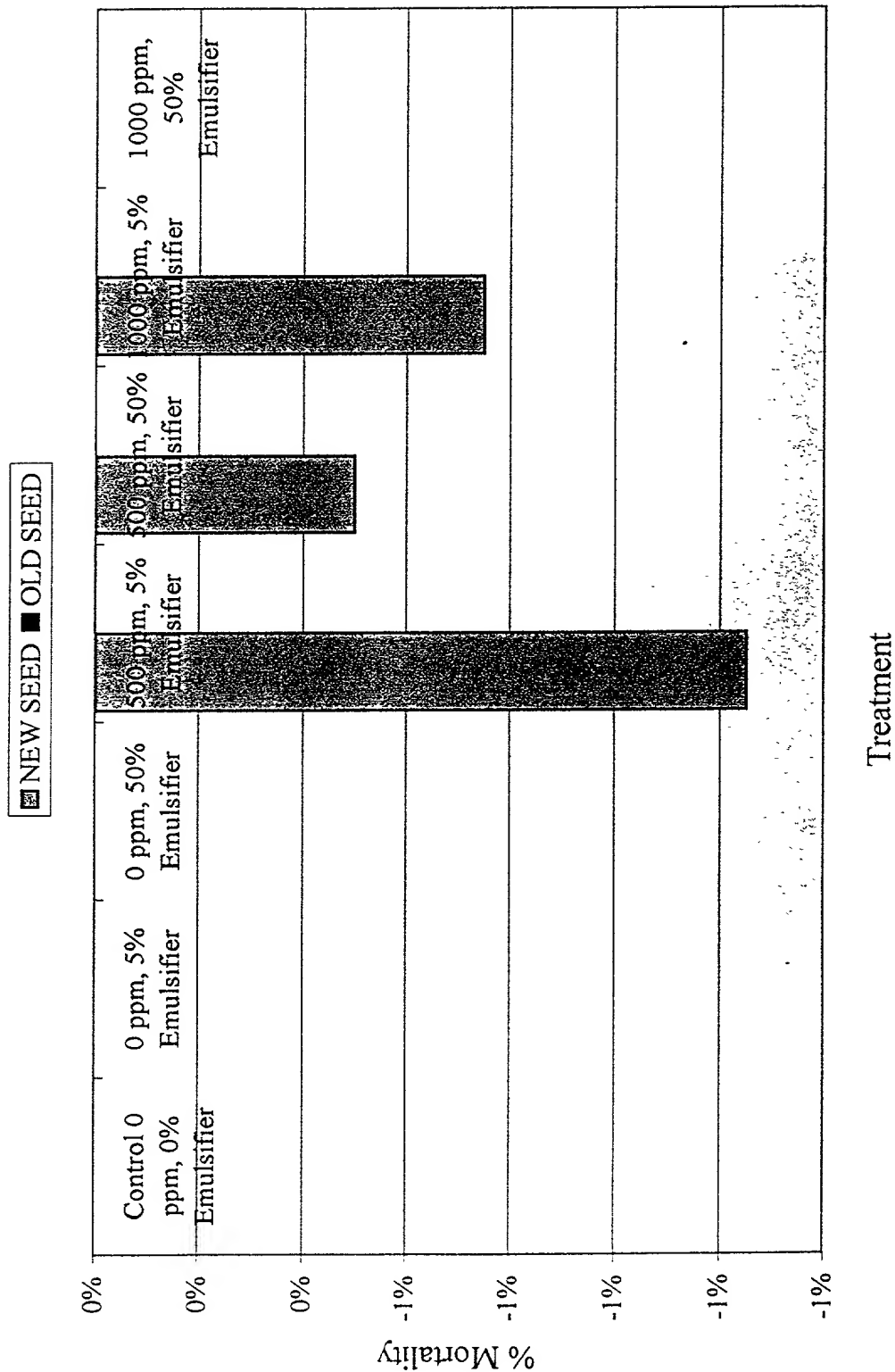


Fig. 9a

Chloropicrin EC - Lab Tests for Weed Seed Mortality YELLOW SWEET CLOVER

Weed Seed: *Melilotus indica*

Treatment Date = 10/28/1999 Number of Seeds/Dish = 100

Treatment		Seed Germination Counts										(% Mortality)										% Mortality Above Control	
		Date of Count = 11/5/1999					Date of Count = 11/9/1999					1st Count at 8 Days					2nd Count at 12 Days						
		Elapsed Time from Treatment ~ 8 Days					Elapsed Time from Treatment ~ 12 Days					Mean					Mean						
Seed Age	Treatment Solution	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Mean	
NEW SEED	Control 0 ppm, 0% Emulsifier	15	8	10	8	22	10	10	8	85%	92%	90%	92%	90%	92%	78%	90%	90%	92%	90%	90%	92%	88%
NEW SEED	0 ppm, 5% Emulsifier	12	17	14	5	14	18	17	7	88%	83%	86%	95%	88%	86%	86%	83%	93%	86%	83%	93%	86%	
NEW SEED	0 ppm, 50% Emulsifier	28	24	23	20	29	33	30	20	72%	76%	77%	80%	76%	77%	71%	67%	70%	80%	70%	80%	72%	
NEW SEED	500 ppm, 0% Emulsifier	25	5	0	8	25	5	0	8	75%	95%	100%	100%	92%	95%	75%	95%	100%	100%	100%	92%	91%	
NEW SEED	500 ppm, 5% Emulsifier	5	2	3	2	5	2	3	2	95%	98%	97%	98%	97%	98%	95%	98%	97%	98%	97%	98%	97%	
NEW SEED	1000 ppm, 5% Emulsifier	1	11	0	4	1	11	0	4	99%	89%	100%	100%	96%	99%	99%	89%	100%	100%	100%	96%	96%	
NEW SEED	1000 ppm, 50% Emulsifier	3	0	0	0	3	0	0	0	97%	100%	100%	100%	100%	100%	97%	100%	100%	100%	100%	100%	99%	
		Date of Count = 11/8/1999										Date of Count = 11/9/1999											
		Elapsed Time from Treatment ~ 11 Days										Elapsed Time from Treatment ~ 12 Days											
OLD SEED	Control 0 ppm, 0% Emulsifier	4	3	3	4	4	3	3	4	96%	97%	97%	96%	97%	96%	97%	97%	96%	97%	97%	96%	97%	97%
OLD SEED	0 ppm, 5% Emulsifier	7	12	12	7	7	12	12	7	93%	88%	88%	93%	91%	93%	93%	88%	88%	93%	93%	88%	93%	91%
OLD SEED	0 ppm, 50% Emulsifier	3	1	2	3	3	1	3	7	97%	99%	98%	97%	98%	97%	97%	99%	99%	97%	97%	93%	97%	97%
OLD SEED	500 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OLD SEED	500 ppm, 50% Emulsifier	1	0	12	0	1	0	12	0	99%	100%	100%	100%	97%	100%	99%	100%	100%	100%	88%	100%	100%	100%
OLD SEED	1000 ppm, 5% Emulsifier	0	0	0	0	0	0	3	5	0	100%	100%	100%	100%	100%	100%	100%	100%	97%	95%	100%	97%	97%
OLD SEED	1000 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		Date of Count = 11/8/1999										Date of Count = 11/9/1999											
		Elapsed Time from Treatment ~ 11 Days										Elapsed Time from Treatment ~ 12 Days											
OLD SEED	Control 0 ppm, 0% Emulsifier	4	3	3	4	4	3	3	4	96%	97%	97%	96%	97%	96%	97%	97%	96%	97%	97%	96%	97%	97%
OLD SEED	0 ppm, 5% Emulsifier	7	12	12	7	7	12	12	7	93%	88%	88%	93%	91%	93%	93%	88%	88%	93%	93%	88%	93%	91%
OLD SEED	0 ppm, 50% Emulsifier	3	1	2	3	3	1	3	7	97%	99%	98%	97%	98%	97%	97%	99%	99%	97%	97%	93%	97%	97%
OLD SEED	500 ppm, 5% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
OLD SEED	500 ppm, 50% Emulsifier	1	0	12	0	1	0	12	0	99%	100%	100%	100%	97%	100%	99%	100%	100%	100%	88%	100%	100%	100%
OLD SEED	1000 ppm, 5% Emulsifier	0	0	0	0	0	0	3	5	0	100%	100%	100%	100%	100%	100%	100%	100%	97%	95%	100%	97%	97%
OLD SEED	1000 ppm, 50% Emulsifier	0	0	0	0	0	0	0	0	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

NEW SEED
Anova Single Factor

SIGNIFICANT DIFFERENCE @ 99%

Groups	Count	Sum	Average	Variance
Row 1	4	3.5	0.875	0.0041
Row 2	4	3.44	0.86	0.0024667
Row 3	4	2.88	0.72	0.0031333
Row 4	4	3.62	0.905	0.017667
Row 5	4	3.88	0.97	0.0002
Row 6	4	3.84	0.96	0.0024667
Row 7	4	3.97	0.9925	0.000225

Source of Variation	SS	df	MS	F	P-value	Fcrit
Between Groups	0.20665	6	0.034442	9.9377078	3.18E-05	3.811749
Within Groups	0.073075	21	0.00348			
Total	0.279725	27				

OLD SEED
Anova Single Factor

SIGNIFICANT DIFFERENCE @ 99%

Groups	Count	Sum	Average	Variance
Row 1	4	3.86	0.965	3.33333E-05
Row 2	4	3.62	0.905	0.000833333
Row 3	4	3.86	0.965	0.000633333
Row 4	4	4	1	0
Row 5	4	3.87	0.9675	0.003425
Row 6	4	3.89	0.9725	0.000425
Row 7	4	4	1	0

Source of Variation	SS	df	MS	F	P-value	Fcrit
Between	0.02422	6	0.00404	5.281931484	0.00186	3.81175
Within Gr	0.01605	21	0.00076			
Total	0.04027	27				

Fig. 9b

% Mortality of New Weed Seeds Over Control Yellow Sweet Clover

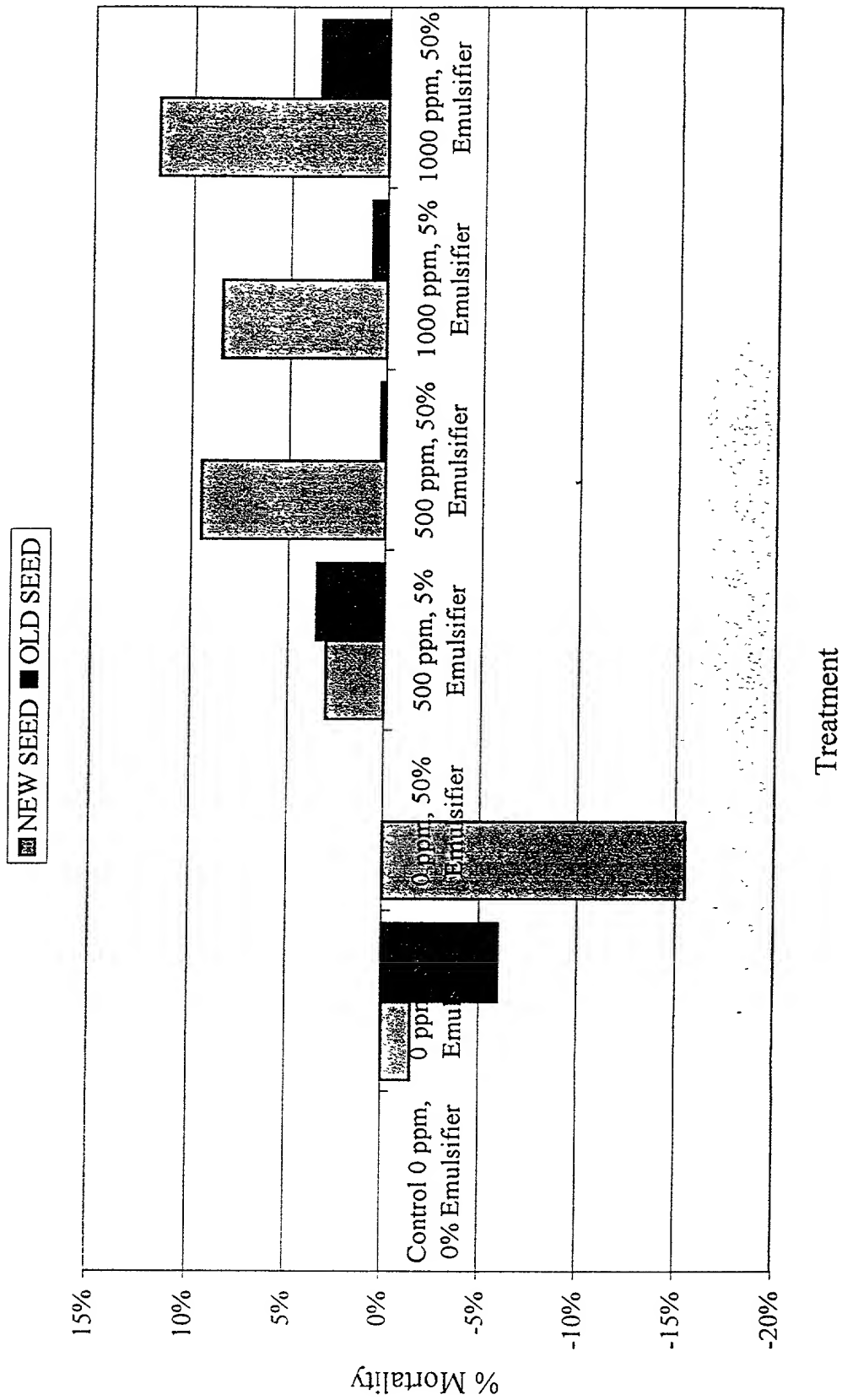


Fig. 10a

T-343.2 Chloropicrin EC - Lab Tests for Weed Seed Mortality

BARNEYARD GRASS

Weed Seed: *Echinochloa crusgalli*

Treatment Date = 10/28/1999

Number of Seeds/Dish = 100

Seed Age		Treatment	Seed Germination Counts										(% Mortality)										% Mortality Above Control																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
			Date of Count = 11/5/1999					Date of Count = 11/9/1999					1st Count at 8 Days					2nd Count at 12 Days																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			Elapsed Time from Treatment = 8 Days					Elapsed Time from Treatment = 12 Days					Mean					Rep 1						Rep 2					Rep 3					Rep 4					Mean																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Treatment Solution		Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	

NEW SEED

Anova Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
Row 1	4	0.24	0.06	0.0072
Row 2	4	0.2	0.05	0.01
Row 3	4	0.94	0.235	0.1687
Row 4	4	0.25	0.0625	0.003225
Row 5	4	1.93	0.4825	0.13075833
Row 6	4	0.86	0.215	0.1036967
Row 7	4	2.7	0.675	0.12016967

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.389038	6	0.231506	2.9866828	0.028176	2.572712
Within Groups	1.62125	21	0.077202			
Total	3.010288	27				

SIGNIFICANT DIFFERENCE @ 99%

OLD SEED

Anova Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
Row 1	4	0.08	0.02	0.0006
Row 2	4	0	0	0
Row 3	4	0	0	0
Row 4	4	1.45	0.3625	0.140225
Row 5	4	0.1	0.025	0.000833333
Row 6	4	0.87	0.2175	0.117225
Row 7	4	0.19	0.0475	0.000691667

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.46954	6	0.078258	2.110372725	0.08515	2.57271
Within Groups	0.77873	21	0.03708			
Total	1.24827	27				

No Significance

Fig. 106

% Mortality of New Weed Seeds Over Control Barnyard Grass

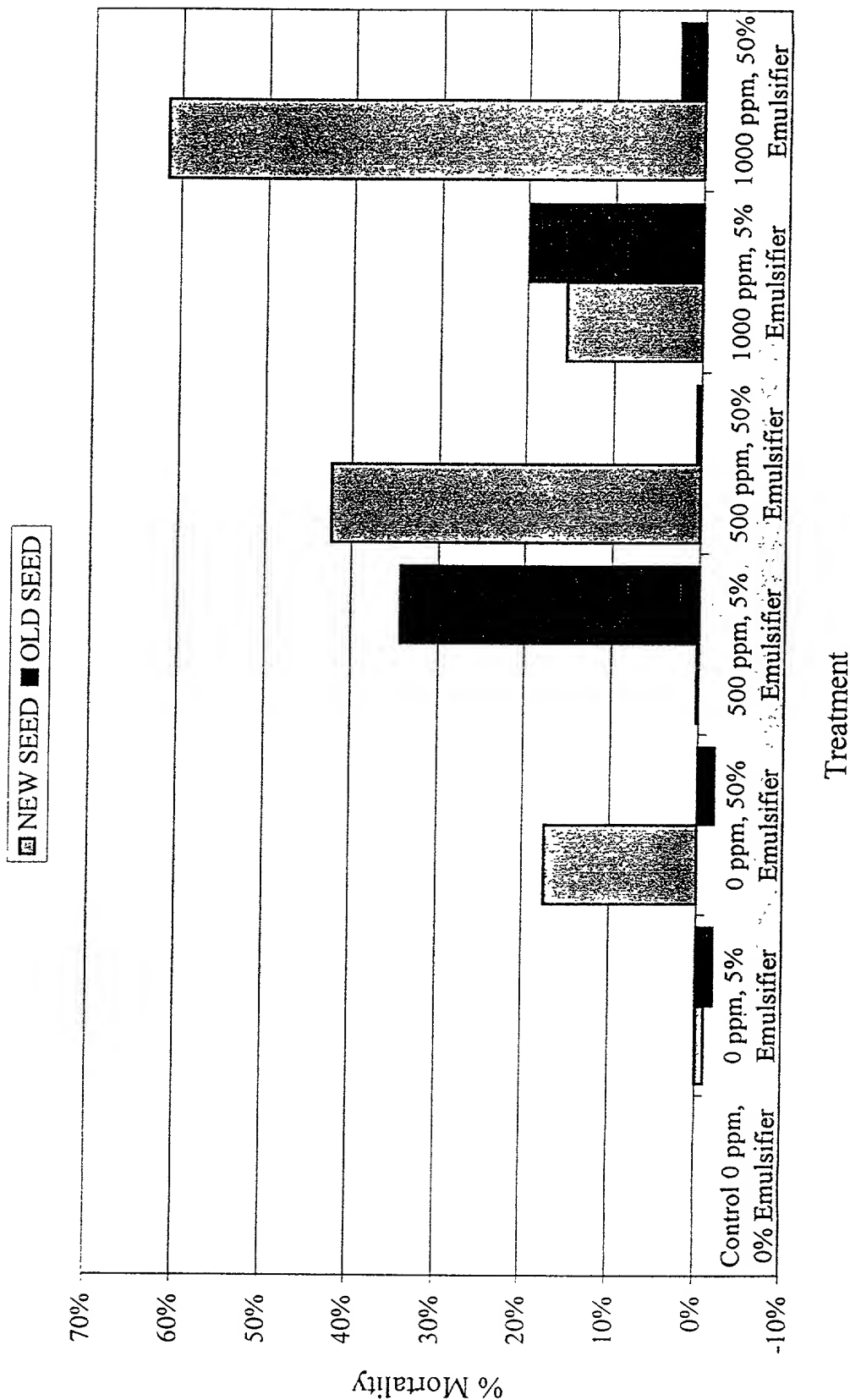


FIG. 11a

3.3.3 Chloropicrin EC - Lab Tests for Weed Seed Mortality

PAINDIVEL

Weed Seed: *Conyololus arvensis* Treatment Date = 10/28/1999 Number of Seeds/Dish = 100

Treatment		Seed Germination Counts										(% Mortality)										% Mortality Above Control			
		Date of Count = 11/5/1999 Elapsed Time from Treatment = 8 Days										Date of Count = 11/9/1999 Elapsed Time from Treatment = 12 Days													
		1st Count					2nd Count					1st Count at 8 Days					2nd Count at 12 Days								
		Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4	Rep 1	Rep 2	Rep 3	Rep 4		Mean		
NEW SEED	Control 0 ppm, 0% Emulsifier	15	20	23	28	80	84	83	78	85%	80%	77%	72%	79%	72%	77%	73%	71%	71%	16%	17%	17%	22%	19%	0%
NEW SEED	0 ppm, 5% Emulsifier	16	22	23	14	29	29	27	18	84%	78%	77%	86%	81%	86%	81%	73%	82%	82%	71%	73%	73%	82%	74%	56%
NEW SEED	0 ppm, 50% Emulsifier	19	15	15	16	51	63	55	65	81%	85%	85%	84%	84%	84%	85%	45%	35%	49%	37%	45%	45%	35%	42%	23%
NEW SEED	500 ppm, 5% Emulsifier	12	16	14	7	54	63	55	65	88%	84%	86%	93%	88%	93%	86%	45%	35%	46%	37%	45%	45%	35%	41%	22%
NEW SEED	500 ppm, 50% Emulsifier	25	13	22	17	62	13	74	56	75%	87%	78%	83%	81%	83%	78%	26%	44%	38%	87%	26%	44%	44%	49%	30%
NEW SEED	1000 ppm, 5% Emulsifier	8	15	5	12	14	20	10	16	92%	85%	95%	88%	90%	88%	95%	90%	86%	86%	81%	81%	90%	85%	85%	66%
NEW SEED	1000 ppm, 50% Emulsifier	5	8	3	4	7	15	7	10	95%	92%	97%	96%	95%	96%	97%	85%	93%	93%	85%	93%	90%	90%	90%	72%
OLD SEED	Control 0 ppm, 0% Emulsifier																								
OLD SEED	0 ppm, 5% Emulsifier																								
OLD SEED	0 ppm, 50% Emulsifier																								
OLD SEED	500 ppm, 5% Emulsifier																								
OLD SEED	500 ppm, 50% Emulsifier																								
OLD SEED	1000 ppm, 5% Emulsifier																								
OLD SEED	1000 ppm, 50% Emulsifier																								

NEW SEED

Anova Single Factor

SUMMARY

Groups	Count	Sum	Average	Variance
Row 1	4	0.75	0.1875	0.0007583
Row 2	4	2.97	0.7425	0.0027583
Row 3	4	1.66	0.415	0.0043687
Row 4	4	1.63	0.4075	0.0030917
Row 5	4	1.95	0.4875	0.070625
Row 6	4	3.4	0.85	0.0017333
Row 7	4	3.61	0.9025	0.001425

SIGNIFICANT DIFFERENCE @ 99%

ANOVA	Source of Variation	SS	df	MS	F	P-value	Fcrit
Between Groups		1.68021	6	0.28004	23.248740	2.97E-08	3.611749
Within Groups		0.254275	21	0.012108			
Total		1.934286	27				

Fig. 116.

% Mortality of New Weed Seeds Over Control Bindweed

